

(12) INTERNATIONAL APPLICATION PUBLISHED UNDER THE PATENT COOPERATION TREATY (PCT)

(19) World Intellectual Property
Organization
International Bureau



(43) International Publication Date
28 October 2004 (28.10.2004)

PCT

(10) International Publication Number
WO 2004/092396 A2

(51) International Patent Classification⁷: **C12Q**
(21) International Application Number:
PCT/US2004/011622
(22) International Filing Date: **15 April 2004 (15.04.2004)**
(25) Filing Language: **English**
(26) Publication Language: **English**
(30) Priority Data:
60/463,148 15 April 2003 (15.04.2003) US

(71) Applicants (for all designated States except US): **NO-VARTIS AG [CH/CH];** Lichtstrasse 35, CH-4056 Basel (CH). **IRM LLC; Sofia House, 48 Church Street, Hamilton (BM).**

(72) Inventors; and

(75) Inventors/Applicants (for US only): **HALLENBECK, Paul [US/US];** 4371 Regalwood Terrace, Burtonsville, MD 20866 (US). **HAMPTON, Garret [IE/US];** 5659 Arbor Grove Court, San Diego, CA 92121 (US). **HAY, Carl [US/US];** 28301 Honeysuckle Drive, Damascus, MD

20872 (US). **HUANG, Ying [CA/US];** 5030 Tothill Drive, Oleny, MD 20832 (US). **JAKUBCZAK, John [US/US];** 12926 Summit Ridge Terrace, Germantown, MD 20874 (US). **PHIPPS, Sandrina [US/US];** 2319 Rosedown Drive, Reston, VA 20191 (US).

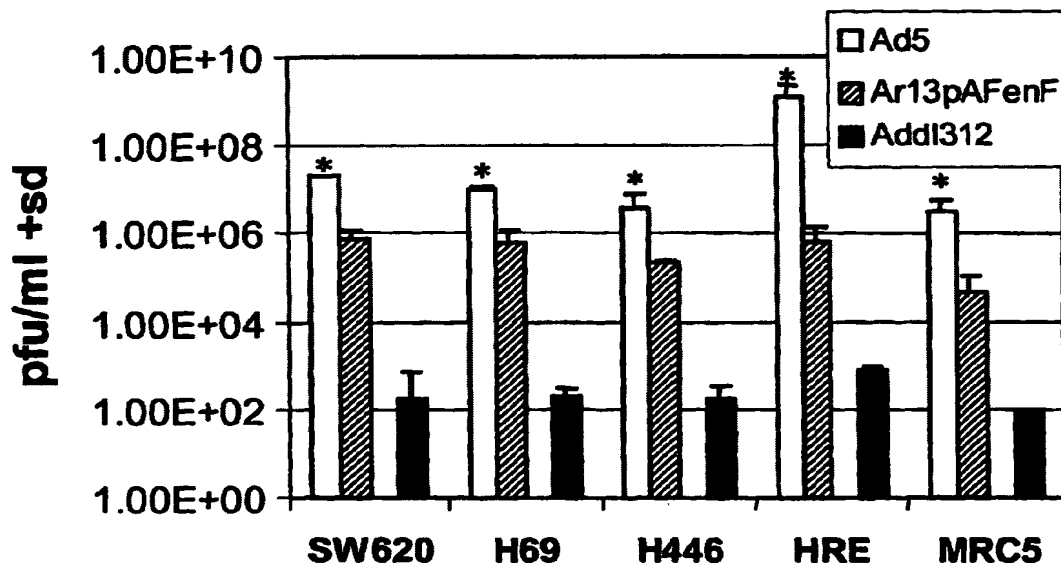
(74) Agent: **SHERWOOD, Pamela, J.;** Bozicevic, Field & Francis LLP, 1900 University Avenue, Suite 200, East Palo Alto, CA 94303 (US).

(81) Designated States (unless otherwise indicated, for every kind of national protection available): AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BW, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, EG, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NA, NI, NO, NZ, OM, PG, PH, PL, PT, RO, RU, SC, SD, SE, SG, SK, SL, SY, TJ, TM, TN, TR, TT, TZ, UA, UG, US, UZ, VC, VN, YU, ZA, ZM, ZW.

(84) Designated States (unless otherwise indicated, for every kind of regional protection available): ARIPO (BW, GH, GM, KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZM, ZW), Eurasian (AM, AZ, BY, KG, KZ, MD, RU, TJ, TM), European (AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR,

[Continued on next page]

(54) Title: **FLAP ENDONUCLEASE 1 (FEN1) REGULATORY SEQUENCES AND USES THEREOF**



(57) Abstract: *FEN1* transcriptional regulatory sequences (TREs) are provided. *FEN1* TREs provide for transcriptional regulation dependent upon transcription factors that are only active in cancer cells. The *FEN1* TREs may be used as a vehicle for introducing new genetic capability, particularly associated with cytotoxicity, for selective expression in cancer cells.